In the claims:

1. (Currently Amended) A method of excitation for use during an NMR examination comprising adiabatically conditioning at least a portion of a body with a progression ~~plurality~~ of radio frequency pulses via a dampening by apodization of magnetization flip angles in preparation for an NMR measurement.

2. (Currently Amended) A method as in claim 1 wherein adiabatically conditioning at least a portion of a body comprises applying said progression ~~plurality~~ of radio frequency pulses in a sinusoidal manner.

3. (Currently Amended) A method as in claim 2 wherein said progression ~~plurality~~ of radio frequency pulses are applied in a sinusoidal manner about a ramp.

4. (Original) A method of excitation for use during an NMR examination comprising:

subjecting a body to an orienting magnetic field;

adiabatically conditioning at least a portion of said body with a first plurality of radio frequency pulses;

exciting said body with a second plurality of radio frequency pulses in a presence of gradient field pulses; and

receiving at least one resonance signal emitted from said body in response to said second plurality of radio frequency pulses.

5. (Original) A method as in claim 4 wherein adiabatically conditioning at least a portion of said body comprises dampening by apodization a magnetization flip angle to cancel a transversal component of a magnetization.

6. (Original) A method as in claim 5 wherein said dampening is in a form of a Kaisar Bessel type apodization.

7. (Original) A method as in claim 6 wherein said Kaisar Bessel type apodization has a dampening coefficient approximately equal to 3.

8. (Original) A method as in claim 5 wherein said dampening is in a form of a Hanning apodization.

9. (Original) A method as in claim 4 wherein said first plurality of radio frequency pulses are determined via a Shinnar Le Roux algorithm.

10. (Original) A method as in claim 4 wherein said second plurality of radio frequency pulses are of a steady-state free precession decay type.

11. (Original) A method as in claim 4 wherein said second plurality of radio frequency pulses are of a fast spin echo type.

12. (Original) A method as in claim 4 wherein said at least one resonance signal is of a steady-state free precession decay type.

13. (Original) A method as in claim 4 wherein said at least one resonance signal is of a fast spin echo type.

14. (Original) A method as in claim 4 wherein said first plurality of radio frequency pulses have flip angle amplitudes that are less than a final flip angle amplitude used to attain a magnetization of equilibrium.

15. (Original) A method as in claim 4 wherein number of pulses within said first plurality of radio frequency pulses is less than or equal to 10.

16. (Original) A method as in claim 4 wherein number of pulses within said first plurality of radio frequency pulses is 8 for a magnetization flip angle of approximately 60°.

17. (Original) A method as in claim 4 wherein magnetization flip angle as a result of said first plurality of radio frequency pulses is approximately 60°.

18. (Original) A method as in claim 4 wherein said at least one resonance signal corresponds to a 2D plane section of said body.

19. (Original) A method as in claim 4 wherein said body is of a cardiac type.

20. (Original) A method as in claim 4 further comprising conditioning said body via an adiabatic finishing of radio frequency pulses.

21. (Original) A method as in claim 20 wherein said adiabatic finishing of radio frequency pulses are the inverse of said first plurality of radio frequency pulses.

22. (Original) A method as in claim 20 further comprising exciting said body with a non-fast excitation-measurement sequence.

23. (Original) A magnetic resonance imaging system comprising:

a magnet subjecting a body to an orienting magnetic field; and

an antennae adiabatically conditioning at least a portion of said body with a first plurality of radio frequency pulses, said antennae exciting said body with a second plurality of radio frequency pulses in a presence of gradient field pulses;

said antennae receiving at least one resonance signal emitted from said body in response to said second plurality of radio frequency pulses.